UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte MILTON SILVA-CRAIG,
GREG ANGST, and THANOS KARRAS

———————————

Appeal 2008-2904
Application 09/681,471
Technology Center 2100

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Decided:[1] February 19, 2009

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Before ALLEN R. MACDONALD, JEAN R. HOMERE and
JAMES R. HUGHES, *Administrative Patent Judges.*

HUGHES, *Administrative Patent Judge.*

DECISION ON APPEAL

———————————

[1] The two month time period for filing an appeal or commencing a civil
action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date
shown on this page of the decision. The time period does not run from the
Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134 (2002) from the Examiner's rejection of claims 1-8, 11-20, 23-36, and 53-54. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

We AFFIRM IN PART.

Appellants' Invention

Appellants invented a system and method of data storage and retrieval utilizing an Application Service Provider (ASP) to provide archive services for medical data. (Spec. ¶¶ [0001] and [0015].) Appellants' system and method employ the Application Service Provider for the centralized access and storage of medical data. (Spec. ¶¶ [0007], [0008], and [0015].)

Claims

Independent claims 1, 15, and 25 further illustrate the invention. They read as follows:

> 1. A central medical data archiving system, said system comprising:
>
> a medical data source providing medical data, wherein said medical data comprises at least one of a medical image, a medical patient report, and a medical application;
>
> a status monitor for controlling a transfer of said medical data from said data source to a centralized remote data store, wherein said status monitor monitors operations occurring at said data source and triggers an archive request after said medical data is obtained by said data source, said data source transmitting said medical

data to said centralized remote data store when said archive request is triggered; and

a centralized remote medical data store receiving said medical data and storing said medical data, wherein said centralized remote medical data store comprises an application service provider.

15. A system for remotely accessing a centralized data store, said system comprising:

a centralized remote data store storing medical data indexed according to data source, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application, wherein said centralized remote data store comprises an application service provider; and

a status monitor for controlling a transfer of said medical data from said centralized remote data store to a data source, wherein said status monitor automatically detects an error in said medical data at said data source by detecting at least one of data loss, data corruption, and failure of said system via a front-end connection between said data source and said status monitor, said status monitor instructing said centralized remote data store to transmit data to said data source in order to restore said medical data, wherein said data source receives said medical data and stores said medical data.

25. A method for remotely archiving medical data, said method comprising:

detecting an operation involving medical data executed at a medical data source, said operation including obtaining said medical data at said medical data source;

transferring said medical data from said medical data source to a centralized remote data store based on a

trigger, wherein said trigger is produced by a status monitor after said operation occurs, wherein said medical data comprises at least one of a medical image, a medical report, and a medical application;

storing said medical data at said centralized remote data store; and indexing said medical data according to said data source.

References

The Examiner relies on the following references as evidence of unpatentability:

Dethloff	US 5,902,981	May 11, 1999
Sameshima	US 6,038,564	Mar. 14, 2000
Kumagai	US 6,081,809	Jun. 27, 2000
Drexler	US 6,338,433	Jan. 15, 2002
Alisuag	US 2002/0083192	Jun. 27, 2002
Rothschild	US 6,678,703 B2	Jan. 13, 2004
Parvulescu	US 6,678,764 B2	Jan. 13, 2004

Rejections

The Examiner rejected claims 1, 2, 5, 7, and 8 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Kumagai, and Sameshima.

The Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Kumagai, Sameshima, and Alisuag.

The Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Kumagai, Sameshima, and Dethloff.

The Examiner rejected claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Kumagai, Sameshima, and Parvulescu.

The Examiner rejected claims 15-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild and Dexler.

The Examiner rejected claim 19 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Dexler, and Alisuag.

The Examiner rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Dexler, and Dethloff.

The Examiner rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Dexler, and Parvulescu.

The Examiner rejected claims 25-29, 31-34, 53, and 54 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima, and Parvulescu.

The Examiner rejected claim 30 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima, Parvulescu, and Alisuag.

The Examiner rejected claims 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Rothschild, Sameshima, Parvulescu, and Dethloff.

Claim Groupings

Appellants' and the Examiner's arguments and rejections raise the following claim groupings: a) claims 1, 2, 5, 7, and 8; b) claims 3 and 4; c) claim 6; d) claims 11-14; e) claims 15-18 and 20; f) claim 19; g) claim 23; h) claim 24; i) claims 25-29, 31-34; j) claim 53; k) claim 54; l) claim 30; and m) claims 35 and 36. The issues before us are:

ISSUE 1

The rejection of claims 1- 8 and 11-14 under 35 U.S.C. § 103(a)

Appellants' Contentions

Appellants contend that the claimed subject matter would not have been obvious. More specifically, Appellants contend that none of the references teach "a status monitor" that "monitors operations occurring at [a] data source" and "triggers an archive request after [ ] medical data is obtained by the data source." (App. Br. 21.)

Examiner's Findings and Conclusions

The Examiner found that Rothschild teaches a medical image management system including a medical data source providing medical data, and an Application Service Provider providing a centralized remote medical data store for receiving and storing medical data. (Ans. 4.) The Examiner determined that Rothschild did not explicitly teach a status monitor monitoring operations at a data source, triggering an archive request after obtaining medical data at the data source, and controlling the transfer of medical data from the data source to a centralized data store. (Ans. 4.) The Examiner found, however, that Rothschild teaches a medical image center tracking the entire process of medical image delivery from local image workstation "merely by reference to the local image workstation," and the local image workstation archiving and sending the image to a central data management system. (Ans. 4-5.) The Examiner found that Kumagai teaches controlling the medical data transfer process. (Ans. 5.) The Examiner also found that Sameshima teaches monitoring the collection of

data and triggering transmission of the data to a processing device. (Ans. 5)
The Examiner concluded that it would have been obvious to incorporate
Rothschild's medical image management system with Sameshima's
teachings of monitoring and transmitting data, and Kumagai's teaching of
controlling the transfer of medical data. (Ans. 5-6.)

Issue

Did Appellants demonstrate that the Examiner erred in finding
Rothschild, Kumagai, and Sameshima collectively teach or suggest a status
monitor monitoring operations at a data source, triggering an archive
request, and controlling transfer of the data to a centralized remote data store
as set forth in claim 1?

FINDINGS OF FACT (FF)

The following findings of fact relevant to the rejections under review
are made based on a preponderance of evidence on the record:

Appellants' Invention

1.   Appellants invented a system and method of data storage and
retrieval utilizing an Application Service Provider (ASP) to provide archive
services for medical data. (Spec. ¶¶ [0001] and [0015].)

2.   Appellants' system and method employs the Application
Service Provider for the centralized access and storage of medical data.
(Spec. ¶¶ [0007], [0008], and [0015].)

3.   Appellants describe that a "status monitor" monitors a "data source," and controls transfer of medical data from the data source to a "remote data store." (Spec. ¶ [0028]; App. Br. 8, 10.)

4.   Appellants describe a status monitor that may transmit commands or instructions to a data source or a remote data store. Appellants describe that the status monitor may also receive commands or instructions from the data source or the remote data store. (Spec. ¶ [0028].)

5.   Appellants' claims do not require that the status monitor and the data source are separate components, i.e., that the status monitor and data source are physically and functionally independent units.

Rothschild Reference

6.   The Examiner found Rothschild teaches a medical image management system including a medical data source that provides medical data including at least a medical image, medical patient report, and/or medical application. (Ans. 4.)

7.   The Examiner found Rothschild teaches a medical image management system including an Application Service Provider based centralized remote medical data store that receives and stores medical data. (Ans. 4.)

8.   The Examiner found Rothschild teaches a medical image center that tracks the entire process of medical image delivery from a local image workstation "merely by reference to the local image workstation." (Ans. 4-5.)

9.   The Examiner found Rothschild teaches that a local image workstation locally archives (stores) medical data then pushes (transmits) the medical data to a central data management system for archiving. (Ans. 5.)

10.   The Examiner found that Rothschild teaches event-based data transfers. Rothschild's local image workstation automatically pushes medical data to a central data management where it is stored, and also automatically routes medical data, via push technology, to a remote image viewing workstation. (Ans. 8.)

11.   The Examiner found Rothschild discloses a user login procedure. (Ans. 7.)

12.   The Examiner found that Rothschild teaches a dedicated network connection for transferring medical data between a medical data source and a centralized remote data store. (Ans. 17.)

13.   The Examiner found that Rothschild teaches a private network connection for transferring medical data between a medical data source and a centralized remote data store. (Ans. 17.)

14.   The Examiner determined that Rothschild did not explicitly teach a status monitor that monitors operations at a data source, triggers an archive request after obtaining medical data at the data source, and controls the transfer of medical data from the data source to a centralized data store. (Ans. 4.)

15.   The Examiner determined that Rothschild did not explicitly teach authenticating access to a data source. (Ans. 7.)

16.   The Examiner determined that Rothschild did not explicitly teach a remote data store restoring medical data to a data source. (Ans. 8.)

17.   The Examiner determined that Rothschild did not explicitly teach a status monitor controlling the transfer of medical data from the data source to a centralized data store at a definable interval. (Ans. 8.)

18.   Rothschild teaches a medical image management system including a local image workstation that receives medical data (medical images) and archives the data. The local image workstation then sends (pushes) an electronic medical record, including the medical data, to a central data management system. (Col. 18, ll. 51-56; col. 19, l. 33 to col. 20, l. 47.)

19.   Rothschild teaches a medical image management system including a central data management system that receives electronic medical records from a local image workstation and archives the records. Rothschild teaches that the central data management system is an Application Service Provider (ASP). (Col. 18, ll. 27-56; col. 20, l. 49 to col. 21, l. 28; col. 22, ll. 16-24.)

20.   Rothschild does not explicitly teach a component that monitors a data source and triggers an archive request after obtaining medical data at the data source; but Rothschild teaches a local image workstation that obtains and archives medical data and transfers the data to the central data management system. (Col. 18, ll. 51-56; col. 19, l. 33 to col. 20, l. 47.)

21.   Rothschild inherently teaches monitoring operations at the local image workstation, triggering an archive request, and controlling transfer of the data to the central data management system.

22.   Rothschild discloses that a user login procedure is known in the art, but that a user login is not part of the preferred embodiment. (Col. 22, ll.

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29-31.) Even so, Rothschild teaches that it may require a login, that it may require authorization to access medical records, and that physician access to medical records is controlled. (Col. 23, ll. 27-39.)

23. Rothschild teaches updating data at a local image workstation with data from a central data management system. Rothschild teaches that a local history record system is updated with data (including medical record transmission, receipt and viewing information), contained in a message from the central data management system. (Col. 29, ll. 30-43.)

Kumagai Reference

24. The Examiner found that Kumagai teaches receiving medical data at regular or irregular intervals from a variety of sources, storing the medical data as a record in a database in a server computer, and controlling the medical data transfer process. (Ans. 5, 19.)

25. Kumagai teaches a medical data processing system in a client-server database management system that manages medical data from multiple sources and reconstructs the data into a flowsheet. (Col. 4, ll. 15-61; col. 12, ll. 33-61; col. 14, l. 63 to col. 15, l. 3.) Kumagai teaches controlling the transfer of medical data from multiple sources to a central server. (*Id.*)

26. The Examiner also determined that Kumagai did not explicitly teach authenticating access to a data source. (Ans. 7.)

27. The Examiner determined that Kumagai did not explicitly teach a remote data store restoring medical data to a data source. (Ans. 8.)

28.   The Examiner determined that Kumagai did not explicitly teach a status monitor controlling the transfer of medical data from the data source to a centralized data store at a definable interval. (Ans. 8.)

Sameshima Reference

29.   The Examiner found that Sameshima teaches monitoring the collection of data and triggering transmission of the data to a processing device. (Ans. 5)

30.   The Examiner determined that Sameshima did not explicitly teach authenticating access to a data source. (Ans. 7.)

31.   The Examiner also determined that Sameshima did not explicitly teach a remote data store restoring medical data to a data source. (Ans. 8.)

32.   The Examiner further determined that Sameshima did not explicitly teach a status monitor controlling the transfer of medical data from the data source to a centralized data store at a definable interval. (Ans. 8.)

33.   Sameshima teaches Status Control Processing (225) and a Status Control Table (234) that monitors and detects data processing and/or acquisition events, as well as controls the timing of data acquisition and integration. (Col. 5, ll. 16-51.)

34.   Sameshima teaches monitoring the collection of data and triggering transmission of the collected data to a separate processing device in response to a data processing or acquisition event.

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35. Appellants concede that Sameshima teaches a device that monitors operations and the collection of data within the same device. (App. Br. 29).

Alisuag Reference

36. The Examiner found Alisuag teaches an access authenticator that authenticates access to a remote data store (source). (Ans. 7, 24.)

37. Alisuag teaches a computer oriented record administration system that controls access to medical records. (¶¶ [0008]-[0011].) A user may access the system (and records) at multiple locations, including a portable memory element, a client computer, or a system server. (¶¶ [0012], [0013], [0045], and Fig. 2.) Authentication of the user may occur at either a client computer system or a system server. (*Id.*)

38. Alisuag teaches a medical record administration system that authenticates access to a system server (remote data store), a portable memory element (a data source), and/or client system providing medical data (a data source).

Dethloff Reference

39. The Examiner found Dethloff teaches a remote data store restoring medical data to a data source. (Ans. 8, 26.)

40. Dethloff teaches a method and system for securing and restoring data, including medical data, of a data medium. (Abstract.) Dethloff teaches that data from the data source (data medium, e.g., electronic wallet) is stored at a remote data storage memory of a terminal, and that in

the event that data from the data source is lost or corrupted, the data is restored by the data terminal. (Col. 1, ll. 42-51; col. 4, l. 16 to col. 5, l. 6.)

Parvulescu Reference

41.   The Examiner found Parvulescu teaches controlling the transfer of medical data from the data source to a centralized data store at a definable interval. (Ans. 9, 27.)

42.   Parvulescu teaches a medical image processing system storing images on a hard drive of an image archiving device, and periodically downloading the stored images to a remotely located medical records management server prior to erasing the hard drive of the image archiving device to free up local storage. (Col. 4, l. 60 to col. 5, l. 4; col. 5, ll. 43-46.)

Rationale to Combine

43.   The Examiner concluded that it would have been obvious to incorporate Rothschild's medical image management system with Sameshima's teachings of monitoring and transmitting data, and Kumagai's teaching of controlling the transfer of medical data. (Ans. 5-6.)

44.   The Examiner found that Rothschild, Kumagai, and Sameshima, each teach or suggest data acquisition and processing. (Ans. 4-5; 19-23.)

45.   The Examiner determined that it "would have been obvious to one ordinary skill in the art at the time of the invention was made" to modify Rothschild to control the transfer of data as taught by Kumagai, and "to include triggering the transfer of the collected data from the monitoring unit

as taught by Sameshima in order to store the medical data at the central system for easy access." (Ans. 5-6.)

46.   Appellants did not challenge or dispute the Examiner's rationale for combining the references in their initial Appeal Brief.

PRINCIPLES OF LAW

An Examiner must establish a factual basis to support a legal conclusion of obviousness in rejecting claims under 35 U.S.C. § 103. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). The factual determinations that the Examiner must make are set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

Burden on Appeal

Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Claim Construction

"Our analysis begins with construing the claim limitations at issue." *Ex Parte Filatov*, No. 2006-1160, 2007 WL 1317144, at *2 (BPAI 2007). "The Patent and Trademark Office (PTO) must consider all claim limitations

when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d 1579, 1582 (Fed. Cir. 1994) (citing *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983)). The language of the claim defines the scope of the protected invention. *Yale Lock Mfg. Co. v. Greenleaf*, 117 U.S. 554, 559 (1886) ("The scope of letters patent must be limited to the invention covered by the claim, and while the claim may be illustrated it cannot be enlarged by language used in other parts of the specification."); *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 396 (Ct. Cl. 1967) ("Courts can neither broaden nor narrow the claims to give the patentee something different than what he has set forth [in the claim]."). *See also Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 419 (1908); *Cimiotti Unhairing Co. v. American Fur Ref. Co.*, 198 U.S. 399, 410 (1905). "Claims must be read in view of the specification, of which they are a part." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc). "[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). *See In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007); *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). *See E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003).

Obviousness

A claimed invention is not patentable if the subject matter of the claimed invention would have been obvious to a person having ordinary skill in the art. 35 U.S.C. § 103(a); *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007); *Graham*, 383 U.S. at 3.

> Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

KSR, 127 S. Ct. at 1734.

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham*, 383 U.S. at 17-18. *See also KSR*, 127 S. Ct. at 1734 ("While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," and discussed circumstances in which a patent might be determined to be obvious without an explicit application of the teaching, suggestion, motivation test. *KSR*, 127 S. Ct. at 1739.

In particular, the Supreme Court emphasized that "the principles laid down in *Graham* reaffirmed the 'functional approach' of *Hotchkiss*, 11

How. 248" (*Id.* (citing *Graham*, 383 U.S. at 12)); and reaffirmed principles based on its precedent that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* The Court explained:

> When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The operative question in this "functional approach" is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.*

Under this framework, once an Examiner demonstrates that the elements are known in the prior art and that one of ordinary skill could combine the elements as claimed by known methods and would recognize that the capabilities or functions of the combination are predictable, then the Examiner has made a *prima facie* case that the claimed subject matter is likely to be obvious. The burden then shifts to the Appellant to show that the Examiner erred in these findings or to provide other evidence to show that the claimed subject matter would have been nonobvious.

If the claimed subject matter cannot be fairly characterized as involving a simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement, a holding of obviousness can be based on a showing that

"there was an apparent reason to combine the known elements in the fashion claimed." *Id.* at 1740-41. Such a showing requires the Examiner provide "some articulated reasoning" in the rejection, which possesses a "rational underpinning to support the legal conclusion of obviousness." *Id.* at 1741 (quoting *In re Kahn*, 441 F.3d at 988). The Supreme Court, citing *Kahn*, 441 F.3d at 988, stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 127 S. Ct. at 1741. However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *Id.*

It is a basic principle that the question under 35 U.S.C. § 103 is not merely what the references expressly teach but what they would have suggested to one of ordinary skill in the art at the time the invention was made. *See Merck & Co. Inc., v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989).

Nor is it necessary that suggestion or motivation be found within the four corners of the references themselves. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). "The obviousness analysis cannot be confined by the formalistic conception

of the words teaching, suggestion, and motivation, or by overemphasis on the importance of . . . the explicit content of issued patents." *KSR*, 127 S. Ct. at 1741.

Consistent with *KSR*, the Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007). The Federal Circuit relied in part on the fact that *Leapfrog* had presented no evidence that the inclusion of a reader in the combined device was "uniquely challenging or difficult for one of ordinary skill in the art" or "represented an unobvious step over the prior art." *Id*. at 1162.

ANALYSIS
Claims 1, 2, 5, 7, and 8

Appellants confine their arguments to the patentability of independent claim 1, and do not provide additional arguments addressing the patentability of dependent claims 2, 5, 7, and 8. (App. Br. 18.) Accordingly, claims 2, 5, 7, and 8 are grouped together and stand or fall with claim 1. Appellants waive separate argument of the patentability of the grouped claims.

Additionally, Appellants did not initially dispute the Examiner's rationale for combining the Rothschild, Kumagai, and Sameshima references. (FF 46.) Appellants raise these arguments for the first time in

their Reply Brief. (Reply Br. 7-8.) Appellants waive these new arguments as not timely raised. *Optivus Tech., Inc. v. Ion Beam Appl'ns S.A.*, 469 F.3d 978, 989 (Fed Cir. 2006) ("[A]n issue not raised by an appellant in its opening brief . . . is waived.") (internal citations omitted).[2] Only those arguments actually made by Appellant were considered in this decision. Arguments that Appellant could have made but chose not to make in the Briefs were not considered and are waived. *See* 37 C.F.R.§ 41.37(c)(1)(vii).

Status Monitor Limitation

Appellants assert that Rothschild, Kumagai, and Sameshima fail to teach Appellants' "status monitor" limitation. More specifically, Appellants contend that none of the references teaches "a status monitor" that controls medical data transfer, "monitors operations occurring at [a] data source" and "triggers an archive request after [ ] medical data is obtained by the data source." (App. Br. 21.) Appellants describe an invention employing an Application Service Provider for the centralized access and storage of medical data. (FF 1-2.) Appellants' system includes a status monitor that monitors a data source, and controls transfer of medical data from the data source to a remote data store. (FF 3.)

Rothschild teaches a medical image management system including a central data management system that receives electronic medical records from a local image workstation and archives the records using an Application Service Provider (ASP). (FF 6-9, 19.) Rothschild also teaches

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[2] *See Ex parte Scholl*, No. 2007-3653, (BPAI Mar. 13, 2008) (Informative), at 17-18, available at http://www.uspto.gov/web/offices/dcom/bpai/its/fd073653.pdf.

that the local image workstation obtains and archives medical data and then
transfers the data to the central data management system. (FF 18, 20.)
While Rothschild inherently teaches status monitoring (FF 21), Rothschild
does not explicitly teach a component for controlling medical data transfer
that monitors a data source and triggers an archive request after obtaining
medical data at the data source. (FF 14, 20.) The Examiner relied on
Kumagai and Sameshima for these teachings.

Kumagai teaches a medical data processing system that controls the
transfer of medical data from multiple sources to a central server and
reconstructs the data into a flowsheet. (FF 24-25.) Sameshima teaches
monitoring the collection of data, detecting data processing or acquisition
events, controlling the timing of data acquisition and integration, and
triggering transmission of collected data to a separate processing device in
response to a data processing or acquisition event. (FF 29, 33-34.)
Appellants concede that Sameshima teaches a device that monitors
operations and the collection of data within at least the same device. (FF
35.)

Appellants assert that the status monitor must be "separate" or
"different" from either the data source or the central data management
system. (App. Br. 23, 29.) Claim 1 contains no language indicating the
status monitor element is separate or different from the other elements of the
claim, in particular the data source. (FF 5.) The claim language defines the
scope of Appellants' invention. *Yale Lock Mfg. Co. v. Greenleaf*, 117 U.S.
at 559. We may not expand the scope by importing limitations from the
specification. *Id.* While a claim term is given its broadest reasonable

interpretation (*In re ICON Health & Fitness, Inc.*, 496 F.3d at 1379), and this interpretation must be consistent with the description of the invention in the specification (*Morris,* 127 F.3d at 1054), limitations not explicit or inherent in the language of a claim cannot be imported from the specification (*E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d at 1369). Accordingly, we find nothing in claim 1 requires that the status monitor and the data source are separate components.

Thus, we find that the Examiner correctly shows where all the claimed elements of Appellants' claim appear in the cited references, and Appellants provide no persuasive evidence to support the assertion that the Rothschild-Kumagai-Sameshima combination does not teach Appellants' status monitor limitation.

Rationale to Combine

The Examiner explained that it would have been obvious to one of skill in the art to incorporate Rothschild's medical image management system with Sameshima's teachings of monitoring and transmitting data, and Kumagai's teaching of controlling the transfer of medical data. (FF 43.) The Examiner shows where all the claimed elements of Appellants' claim appear in the cited references. The Examiner demonstrates that the elements are known in the prior art and that the combination is a predictable use of prior art elements according to their established functions. *See KSR*, 127 S. Ct. at 1740. The Examiner has made a *prima facie* case that the claimed subject matter is obvious. Appellants did not initially dispute the Examiner's rationale for combining Rothschild, Kumagai, and Sameshima.

(FF 46.) Appellants raise these arguments for the first time in their Reply Brief. (Reply Br. 7-8.) Accordingly, these arguments are waived.

Assuming *arguendo*, that the Examiner must articulate some additional reasoning for combining the references, the Examiner found that each of the cited references teaches or suggests data acquisition and processing. (FF 44.) The Examiner then determined that it "would have been obvious to one ordinary skill in the art at the time of the invention was made" to modify Rothschild to control the transfer of data as taught by Kumagai, and "to include triggering the transfer of the collected data from the monitoring unit as taught by Sameshima in order to store the medical data at the central system for easy access." (FF 45.) We find the Examiner articulated a sufficient rationale for combining the references.

Claims 3 and 4

Appellants reiterate their previous arguments, and assert that the combination of Rothschild, Kumagai, Sameshima, and Alisuag do not teach or suggest an access authenticator that authenticates and permits access to the remote data store and the data source. (App. Br. 38.) The Examiner determined that Rothschild, Kumagai, and Sameshima do not explicitly teach authenticating access to a data source. (FF 15, 26, 30.) The Examiner found that Alisuag teaches an access authenticator that permits access to the data source. (FF 36.)

Rothschild describes that a user login procedure is known in the art, but that a user login is not part of the preferred embodiment. Even so, Rothschild may require a login or authorization to access medical records,

and describes that physician access to medical records is controlled. (FF 22.) Alisuag teaches a computerized record administration system that controls access to medical records at multiple locations, including a portable memory element, a client computer, or a system server. (FF 37.) Authentication of the user may occur at either a client computer system or a system server. (*Id.*) Accordingly, Alisuag teaches authenticating user access to a remote data store (the system server), or a data source (a portable memory element or a client system providing medical data). (FF 38.)

We find that Appellants fail to show error in the Examiner's conclusion that Rothschild, Kumagai, Sameshima, and Alisuag render claims 3 and 4 unpatentable.

Claim 6

Appellants reiterate their previous arguments, and assert that the combination of Rothschild, Kumagai, Sameshima, and Dethloff do not teach or suggest a remote data store that restores medical data to a data source. (App. Br. 40.) The Examiner determined that Rothschild, Kumagai, and Sameshima do not explicitly teach restoring medical data to a data source. (FF 16, 27, 31.) The Examiner found that Dethloff teaches a remote data store restoring medical data to a data source. (FF 39.)

Rothschild teaches updating data at a data source (local image workstation) with data from a remote data store (central data management system). (FF 23.) Rothschild does not explicitly teach "restoring" lost medical data from the central data management system to the local image workstation. Dethloff teaches that medical data from a data source is stored

at a remote data storage memory of a terminal and is restored by the data terminal to the data source in the event the data is lost or corrupted. (FF 40.) Thus, we find that Appellants fail to show error in the Examiner's conclusion that Rothschild, Kumagai, Sameshima, and Dethloff render claim 6 unpatentable.

Claims 11-14

Appellants confine their arguments to the patentability of independent claim 1, and do not provide additional arguments addressing the patentability of dependent claims 11-14. (App. Br. 42.) In addition, as explained by the Examiner, the combination of Rothschild, Kumagai, Sameshima, and Parvulescu teaches a status monitor that controls the transfer of medical data from a data source to a remote data store at a definable interval. (Ans. 8-9; FF 41.) Rothschild, Kumagai, and Sameshima do not explicitly teach transferring data at a defined interval (FF 17, 28, 32); however, Parvulescu teaches a status monitor that controls the transfer of medical data from a data source to a remote data store at a definable interval. (FF 41.)

Rothschild teaches that the delivery of medical data may be scheduled (col. 22, ll. 40-44; col. 33, ll. 12-15); however, Rothschild does not explicitly teach delivering data at definable intervals. Parvulescu teaches a medical image processing system that periodically downloads the stores images to a remotely located medical records management server prior to erasing a hard drive of the image archiving device. (FF 42.) Accordingly, we find that Appellants fail to show error in the Examiner's determination that

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Rothschild, Kumagai, Sameshima, and Parvulescu render claims 11-14 unpatentable for the reasons previous set forth with respect to claim 1.

CONCLUSIONS OF LAW

Appellants did not demonstrate the that Examiner erred in finding Rothschild, Kumagai, and Sameshima collectively teach or suggest a status monitor monitoring operations at a data source, triggering an archive request, and controlling transfer of the data to a centralized remote data store as set forth in claim 1.

ISSUE 2

The rejection of claims 15-20, 23, 24, and 54 under 35 U.S.C. § 103(a)

Appellants' Contentions

Appellants contend that the claimed subject matter would not have been obvious. More specifically, Appellants contend that none of the references teaches a status monitor that "automatically detects an error in medical data at a data source," and "instructs a centralized remote data store to transmit data to the data source in order to restore the medical data." (App. Br. 45.)

Examiner's Findings and Conclusions

The Examiner found that Rothschild teaches a medical image management system including a medical data source providing medical data, and an Application Service Provider providing a centralized remote medical data store for receiving and storing medical data. (Ans. 10.) The Examiner

determined that Rothschild did not explicitly teach a status monitor
controlling the transfer of medical data from the data source to a centralized
data store wherein the status monitor automatically detects an error in the
medical data and instructs the centralized data store to restore the medical
data at the data source. (*Id.*) The Examiner found that Drexler teaches a
status monitor controlling the transfer of medical data from the data source
to a centralized data store wherein the status monitor automatically detects
an error in the medical data and instructs the centralized data store to restore
the medical data at the data source. (*Id.*)

Issue

Did Appellants demonstrate that the Examiner erred in concluding
one skilled in the art would have incorporated Rothschild's medical image
management system with Drexler's teachings of error detection?

ADDITIONAL FINDINGS OF FACT (FF)
Rothschild Reference

47.   The Examiner determined that Rothschild did not explicitly
teach a status monitor controlling the transfer of medical data from the data
source to a centralized data store wherein the status monitor automatically
detects an error in the medical data and instructs the centralized data store to
restore the medical data at the data source. (Ans. 10.)

48.   Rothschild does not teach automatic error detection and
restoration. Rothschild, however, teaches polling between a local image
workstation and a central data management system (col. 30, l. 53 to col. 33,

l. 46), and notification of delivery failure, i.e., error detection and notification (col. 29, ll. 19-23).

Drexler Reference

49.   The Examiner found Drexler teaches a status monitor controlling the transfer of medical data from the data source to a centralized data store wherein the status monitor automatically detects an error in the medical data and instructs the centralized data store to restore the medical data at the data source. (Ans. 10.)

50.   The Examiner also found Drexler discloses the "concept of error detection and correction by using data recovery of medical data." (Ans. 28.)

51.   Drexler teaches a system and method for laser writing multiple updatable miniature 2-D bar codes on optical memory cards and labels. (Col. 1, ll. 13-16.)

52.   Drexler describes Error Detection and Correction (EDAC) systems that compensate for lost microscopic bar code data spots, as well as redundantly recording critical data as large pixels on the same data card and using the large pixels for data recovery. (Col. 6, ll. 4-16.)

53.   Drexler does not mention data transfers, network data communications, medical data, or medical data archiving.

ANALYSIS

Appellants contend that Rothschild and Drexler do not teach a status monitor that automatically detects an error in medical data at a data source,

and then instructs a centralized remote data store to transmit data to the data source in order to restore the medical data. (App. Br. 45.)

The Examiner concedes that Rothschild does not teach a status monitor that automatically detects an error in the medical data at a data source and restores the medical data at the data source from a remote data store. (FF 47.) The Examiner relies upon Drexler for this teaching. The Examiner found that Drexler teaches a status monitor controlling the transfer of medical data from the data source to a centralized data store wherein the status monitor automatically detects an error in the medical data and instructs the centralized data store to restore the medical data at the data source. (FF 49.) The Examiner also found Drexler discloses the "concept of error detection and correction by using data recovery of medical data." (FF 50.)

We find that Rothschild teaches polling between a local image workstation and a central data management system, and notification of delivery failure, i.e., error detection and notification. (FF 48.) We agree with the Examiner, and find that Rothschild does not teach automatic error detection and restoration.

We disagree with the Examiner as to the teachings of Drexler. Drexler teaches a system and method for laser writing multiple updatable miniature 2-D bar codes on optical memory cards and labels. (FF 51.) Drexler describes Error Detection and Correction systems that compensate for lost microscopic bar code data spots, as well as redundantly recording critical data as large pixels on the same data card and using the large pixels for data recovery. (FF 52.) Drexler does not teach or suggest error

correction with respect to data transfers, network data communications, medical data, or medical data archiving. (FF 53.) Accordingly, we find no rational basis for the Examiner's conclusion that Drexler teaches a status monitor for controlling the transfer of medical data from the data source to a centralized data store wherein the status monitor automatically detects an error in the medical data and instructs the centralized data store to restore the medical data at the data source.

CONCLUSIONS OF LAW

Appellants demonstrated that the Examiner erred in concluding one skilled in the art would have incorporated Rothschild's medical image management system with Drexler's teachings of error detection.

ISSUE 3

The rejection of claims 25-36, 53, and 54 under 35 U.S.C. § 103(a)

Appellants' Contentions

Appellants contend that the claimed subject matter would not have been obvious. More specifically, Appellants contend that none of the references teaches "a status monitor" that "monitors operations occurring at [a] data source" and "triggers an archive request after [ ] medical data is obtained by the data source." (App. Br. 59.) Appellants also contend that none of the references teaches a status monitor that detects "when medical data is obtained at a medical data source" and transfers "the medical data from the data source to a centralized remote data store based on a trigger." (App. Br. 62.)

Examiner's Findings and Conclusions

The Examiner found that Rothschild teaches a medical image management system including a medical data source providing medical data, and an Application Service Provider providing a centralized remote medical data store for receiving and storing medical data. (Ans. 14.) The Examiner determined that Rothschild did not explicitly teach a status monitor that detects when medical data is obtained at a medical data source and transfers the medical data from the data source to a centralized remote data store based on a trigger, where the trigger is produced by the status monitor after the medical data is obtained. (*Id.*) The Examiner also found that Sameshima teaches monitoring the collection of data and triggering transmission of the data to a processing device. (*Id.*) The Examiner also found that Parvulescu teaches indexing of the medical data for storage. (Ans. 14-15.) The Examiner concluded that it would have been obvious to incorporate Rothschild's medical image management system with Sameshima's teachings of monitoring and transmitting data, and Parvulescu's indexing data for storage. (Ans. 15.)

Issue

Did Appellants demonstrate that the Examiner erred in finding Rothschild, Sameshima, and Parvulescu collectively teach or suggest a status monitor detecting medical data operations at a medical data source, triggering transfer of medical data from the medical data source to a centralized remote data store, and the centralized remote data store indexing and storing the medical data as set forth in claim 25?

ADDITIONAL FINDINGS OF FACT (FF)

Rothschild Reference

54.   The Examiner determined that Rothschild did not explicitly teach a status monitor that monitors operations at a data source, detects when medical data is obtained, triggers the transfer of medical data, and transfers the medical data from the data source to a centralized data store. (Ans. 14.)

55.   Rothschild does not explicitly teach a monitoring a data source and triggering the transfer of medical data after obtaining the medical data at a data source; but Rothschild teaches a local image workstation that obtains and archives medical data and transfers the data to the central data management system. (Col. 18, ll. 51-56; col. 19, l. 33 to col. 20, l. 47.)

56.   Rothschild teaches an Image History Record System, including a local history record system and a remote history record system that send messages to the central data management system about the medical data records and notify the user concerning the status of delivery of the medical data records. (Col. 29, ll. 6-53.)

57.   Rothschild teaches a polling system that controls the transfer of medical data between the local image workstation and a delivery queue at the central data management system, and monitors and confirms delivery of medical data. (Col. 30, l. 53 to col. 31, l. 12; col. 32, ll. 18-39.)

Parvulescu Reference

58.   The Examiner found Parvulescu teaches indexing medical data for storage. (Ans. 14-15, 32-33.)

59.   Parvulescu teaches that it indexes and stores medical images using a predictable syntax that eases future management and retrieval. (Col. 4, ll. 50-62.) The stored and indexed images are then transferred (backed up) to a system server. (Col. 4, l. 60 to col. 5, l. 4; col. 5, ll. 43-46.)

60.   Parvulescu also teaches controlling the transfer of medical image data from a local hard drive of an image archiving device (a data source) to a system server and/or a remotely located medical records management server (a centralized data store) at a definable interval. (Col. 4, l. 60 to col. 5, l. 4; col. 5, ll. 43-46; col. 6, ll. 15-52.)

ANALYSIS

Claim 53

The Examiner grouped claim 53 with claims 25-29, 31-34, and 54, rejecting the claim as being unpatentable over Rothschild, Sameshima, and Parvulescu. Claim 53 is dependent upon independent claim 1 not on independent claim 25, but is analyzed here for the convenience of the parties.

Appellants reiterate their previous arguments, and assert that Rothschild, Sameshima, and Parvulescu do not teach or suggest a status monitor that controls medical data transfer, monitors operations occurring at a data source, and triggers an archive request after medical data is obtained by the data source. (App. Br. 59.) Appellants' argument differs slightly from that made with respect to claim 1 in that Appellants contend that Parvulescu does not teach controlling data transfer (App. Br. 60.).

As we previously explained, Rothschild teaches every element of
Applicants' claim 1 except a component for controlling medical data transfer
that monitors a data source and triggers an archive request after obtaining
medical data at the data source. The Examiner relied on Sameshima and
Parvulescu for these teachings. Sameshima teaches monitoring data
collection, and triggering data transmission to a separate processing device
in response to a data processing or acquisition event. (FF 29, 33-34.)
Appellants concede that Sameshima teaches a device that monitors
operations and the collection of data within at least the same device. (FF
35.)

Parvulescu teaches controlling the transfer of medical image data
from an image archiving device (a data source) to a system server and/or a
remotely located medical records management server (a centralized data
store) at a definable interval. (FF 60.) Thus, we find that the Examiner
correctly shows where all the claimed elements of Appellants' claim appear
in the cited references, and Appellants provide no persuasive evidence to
support the assertion that the Rothschild-Sameshima-Parvulescu
combination does not teach Appellants' status monitor limitation.

Claim 54

The Examiner mistakenly grouped claim 54 with claims 25-29, 31-34,
and 53, and rejected the claims as being unpatentable over Rothschild,
Sameshima, and Parvulescu. Claim 54 is dependent upon independent claim
15, not on independent claim 25. The Examiner actually analyzed the claim
with claim 15 as being unpatentable over Rothschild and Drexler. (Ans. 32.)

Accordingly, we have included claim 54 in our analysis of Issue 2 and claims 15-20, 23, and 24.

Claims 25-29, 31-34

Appellants confine their arguments to the patentability of independent claim 25, and do not provide additional arguments addressing the patentability of dependent claims 26-29 and 31-34. (App. Br. 63.) Accordingly, claims 26-29 and 31-34 are grouped together and stand or fall with claim 25. Appellants waive separate argument of the patentability of the grouped claims.

Appellants contend that Rothschild, Sameshima, and Parvulescu do not teach or suggest a status monitor that detects when medical data is obtained at a medical data source and transfers the data from the data source to a centralized remote data store based on a trigger. (App. Br. 62-63.)

Rothschild teaches a medical image management system including a local image workstation that obtains and archives medical data, and then transfers the data to the central data management system. (FF 18, 55.) The central data management system receives the data from the local image workstation and archives the records using an Application Service Provider. (FF 6-9, 19.) Rothschild also inherently teaches status monitoring (FF 21). Rothschild, however, does not explicitly teach a monitoring a data source, detecting when medical data is obtained, triggering the transfer of medical data, and transferring the data to a centralized remote data store. (FF 54-55.) The Examiner relied on Sameshima for these teachings.

Sameshima teaches monitoring data collection, and triggering data transmission to a separate processing device in response to a data processing or acquisition event. (FF 29, 33-34.) Appellants concede that Sameshima teaches a device that monitors operations and the collection of data within at least the same device. (FF 35.) Sameshima expressly teaches that "Filtering processing 222 is a program for detecting events such as . . . an event based on data renewal . . . [or] obtaining the data in the self processing device through the data access processing 221 . . . and transmitting data obtained through the communication management 223 to another processing device which requests the data . . . ." (Col. 5, ll. 22-33) (bolding omitted.) Thus, Sameshima teaches a monitoring a data source, detecting when medical data is obtained, triggering the transfer of medical data, and transferring the data to another device.

Parvulescu teaches indexing and storage of medical images using a predictable syntax that eases future management and retrieval. (FF 58-59.) Parvulescu also teaches controlling the transfer of medical image data from an image archiving device (a data source) to a system server and/or a remotely located medical records management server (a centralized data store). (FF 60.)

Accordingly, we find that the Examiner correctly shows where all the claimed elements of Appellants' claim appear in the cited references, and Appellants provide no persuasive evidence to support the assertion that the Rothschild-Sameshima-Parvulescu combination does not teach Appellants' status monitor limitation.

Claim 30

Appellants confine their arguments to the patentability of independent claim 25, and do not provide additional arguments addressing the patentability of dependent claim 30. (App. Br. 64.) Accordingly, claim 30 is grouped with and stands or falls with claim 25. Appellants waive separate argument of the patentability of the grouped claim.

Claims 35 and 36

Appellants confine their arguments to the patentability of independent claim 25, and do not provide additional arguments addressing the patentability of dependent claims 35 and 36. (App. Br. 65.) Accordingly, claims 35 and 36 are grouped together and stand or fall with claim 25. Appellants waive separate argument of the patentability of the grouped claims.

CONCLUSIONS OF LAW

Appellants did not demonstrate that the Examiner erred in finding Rothschild, Sameshima, and Parvulescu collectively teach or suggest a status monitor detecting medical data operations at a medical data source, triggering transfer of medical data from the medical data source to a centralized remote data store, and the centralized remote data store indexing and storing the medical data as set forth in claim 25

DECISION

We affirm the Examiner's rejection of claims 1- 8, 11-14, 25-36, and 53. We reverse the Examiner's rejection of claims 15-20, 23, 24, and 54. No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

msc

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